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# United States Department of Agriculture,

## BUREAU OF PLANT INDUSTRY,

### Forage Crop Investigations,

WASHINGTON, D. C.

#### SAND LUCERN (*Medicago sativa varia*).

Sand lucern is a name given to a variety of alfalfa which possesses a small amount of the hardy yellow-flowered alfalfa of Europe and Siberia in its ancestry. For this reason it is hardier than the ordinary commercial strains of alfalfa and is adapted to grow under conditions somewhat too severe for the ordinary western-grown seed. It lodges a little more readily than does the ordinary alfalfa, but generally the yields are fully equal to the latter strain. Since this seed will usually be sown in the North-Central States it is suggested that late spring or early summer seeding be practiced. In other sections the seed should be handled as is the common practice with ordinary alfalfa.

*Soil requirements.*—A deep, fertile, well-drained soil, reasonably free from weeds, is required. Coarse manure as a top dressing will afford some protection during the first winter, but care should be taken that no manure be used which is full of weed seed.

*Preparation of the seed bed.*—The soil upon which sand lucern is sown should be well settled but finely pulverized on top. A month or six weeks at least should be allowed for freshly plowed land to settle. Fall plowing is usually necessary, as land freshly plowed in the spring will hardly have time to settle before planting time. Corn-stubble land may, however, be disked in the spring and still have time to become sufficiently settled.

*Inoculation.*—If the soil lacks the necessary nitrogen-fixing bacteria it is necessary to supply this at the time of seeding. This can be done either with artificial cultures or by scattering soil from a successful alfalfa field. This soil should be broadcasted at the rate of 250 to 500 pounds per acre and harrowed in immediately. The spreading should take place on a cloudy day or in the evening, as the sun's rays are destructive to the germs. Care should be taken to prevent the introduction of seeds of noxious weeds or fungous diseases. Soil from the roots of sweet clover will also inoculate sand lucern and should be spread as suggested with the soil from an old alfalfa field.

*Seeding.*—The seed should be sown at the rate of 20 pounds per acre in humid sections, but a less quantity may be seeded in the semiarid sections. A more even stand may be secured by seeding one-half of the seed north and south and the other half east and west. Sand lucern should be sown on land which is reasonably free from weeds, as it makes rather a slow growth at first and spring-sown plants are apt to be choked out by the weeds of middle summer. For this reason it is generally advisable to plant sand lucern on land which has been in cultivated crops for several years.

*Treatment of the stand.*—Usually no special treatment of the stand is necessary except to cut the plants when they come into bloom. After the first year an occasional disking will usually invigorate the field. Under no circumstances should a field be pastured during the first two years, and even an old field should best be pastured sparingly. If green feed is desired soiling is the best practice. In all cases the sand lucern should be allowed to go into the winter with at least a month's growth, as this will allow the snow to be caught and the crowns protected from winterkilling.

For more detailed information, see Farmers' Bulletin No. 339, entitled "Alfalfa."

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JULY 8, 1909.



